(Loamy Bottomland)

Description: Deep, well drained or moderately well drained soils with

loamy surfaces and loamy or clayey subsoils. Soils in this subgroup occur on floodplains and terraces which receive extra moisture from adjoining areas. (Soils with a clayey subsoil have at least 14 inches of loamy material above the

subsoil.)

Limitations: Soils in this subgroup can have slight wetness and slight

salinity or alkalinity.

Soils: Alluvial land

Eudora silt loam
Haynie silt loam
Ivan silt loam
Kahola silt loam
Kennebec silt loam
Mason silt loam
Muir silt loam
Nodaway silt loam

Reading silt loam, soils Verdigris silt loam, soils

LRA: 76 SUITABILITY SADUP: A-1

SPECIES		CIES ILITY 1 / IRRIGATED	SPECIES PRODUC- TIVITY 2_/	GRAZING PREFERENCE 3_/	STAND ESTABLISH- MENT 4_/		TILIZ EDS 5		Ph RANG E 6_/	DROUGHT TOLERANCE
WARM BEASON GRASSES BERNEDAGRASS HARDIE MIDLAND BIG BLUESTEM KAN	65 65 65 9	85 85 85 9	999566	5 4 5 7	2-3 2-3 2-3 2-3 2-3 2-3	1-3 1-3 1-3 0-1	0 0-5 0-5 0-5	1-2 1-2 1-2 0	5.5-8.0 5.5-8.0 5.5-8.0 6.0-7.5	FAIR FAIR FAIR FAIR-GOOD FAIR-GOOD FAIR-GOOD
PANNEE EASTERN GAMAGRASS INDIANGRASS CHEYENNE NEBRASKA 54 DSAGE	8N 8 8 7 7N 8	8N 9 8 7 7N 8	10	7 6 7 7 7	2-4 1-3 1-3 1-3 1-3	0-3 0-1	0-5	0-1 0	5.5-7.5 5.5-7.5	FAIR FAIR FAIR FAIR FAIR
SHITCHGAASS BLACKWELL DAVE-IN-ROCK KANLOH PATHFINDER	8 8 7 6 8N	8 8 7 6 8N	56656786	5 5 5 4 5	1-2 1-2 1-2 1-2 1-2	0-5	0	Û	5.5 -8 .0	600D 600D 600D 900R 600D
TRAILBLAZER COGL SEASON GRASSES CREEPING FOXTAIL	8N 3N	en en	6	6 7	1-2 1-2	1-2	1-2	0-2	5.5-7.0	6000 POOR
GARRISON DRCHARDGRASS LATAR REED CAMARYGRASS	3N 6 6 5	5N 8 8 7	7 6 7 7	7 7 7 6	1-2 1-2 1-2 1-2	1-2	1-2 1-2	0-5 0-5	5.5-7.0 5.5-7.0	POOR POOR POOR POOR
IOREED RISE SMOOTH BROMEGRASS ACHENBACH	5 4 8 8	· 7 6 8	7 8 8 7 7	6 6 7 7	1-2 1-2 1	1-2	1-2	0-5	5.5-7.0	POOR POOR FAIR FAIR
LINCOLN SOUTHLAND TALL FESCUE KENTUCKY-31	7 8 8 6 8	7 8 8 7 8	7 6 7 7	7 7 4	i i	1-2	1-5	0-2	6.2-7.0	FAIR FAIR POOR POOR POOR
MISSOURI-96 WEATERASS TALL JUSE	7 7 7	8 7 7	7 5 6	4	i 1-2 1-2	1-2	1-2	0-1	7.0-8.5	POOR FAIR FAIR
WESTERN BARTON LEGUMES	77	77	5	5 5	1-3 1-3	0-1	0-1	0-1	6.5-8.5	600D 600D
ALFALFA (STANDARD) (RHIZOMATDUS)		9 8	10 7	8 8	1 1-2	0-1 0-1	1-3 1-3	1-3 1-2	6.5-8.0 6.5-8.0	600D 600D

¹_/ ADAPTABILITY - O=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=600D; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

²_/ SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

³_/GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

^{4 /} STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

⁵_/ FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K: 2=50-100 POUNDS OF N. 40-60 POUNDS OF P, 40-70 POUNDS OF K: 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K: THE FIRST CATABORY IS WHAT IS MEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATABORY IS THE HIBHEST ANDUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

⁵_/ Ph RANGE - LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

(Loamy)

Description: Deep, well drained or moderately well drained soils with

loamy surfaces and loamy or clayey subsoils. Soils in this subgroup occur on uplands and receive little or no extra moisture from adjoining areas. (Soils with a clayey subsoil

have at least 14 inches of loamy material above the

subsoil.)

Limitations: Few or no limitations. Soils in this subgroup can have

slight wetness and slight salinity or alkalinity.

Soils: Dennis silt loam

Martin silty clay loam, complex

Monona silt loam Newtonia silt loam

Tully cherty, silty clay loam; silty clay loam

LRA: 76 SUITABILITY GROUP: A-2

SPECIES	ADAPTAB	CIES ILITY 1 / IRRIGATED	SPECIES PRODUC- TIVITY 2_/	GRAZING PREFERENCE 3_/	STAND ESTABLISH- MENT 4_/		TILIZ EDS 5		Ph range 6_/	DROUGHT TOLERANCE
WARM SEASON BRASSES BERMUDAGRASS HARDIE	4S 4S	7 5 75	9	5 4	2-3 2-3	1-3	0-2	1-2	5.5-8.0	FAIR FAIR
MIDLAND BIS BLUESTEM KAN	4S - 8 - 8	7S 8 8	9 5 6	5 7 7	2-3 2-3 2-3	0-1	0	0	6.0-7.5	FAIR FAIR-GOOD FAIR-GOOD
PANNEE EASTERN BAMAGRASS INDIANGRASS CHEYENNE	8N 4 8 7	8N 8 8 7	6 10 5 6	7 8 7 7	2-3 2-4 1-3 1-3	0-3 0-1	0-2 0	0-1 0	5.5-7.5 5.5-7.5	FAIR-GOOD FAIR FAIR FAIR
NEBRASKA 54 GSAGE SWITCHGRASS BLACKWELL	7 8 7 7	7 8 8	5 6 5 6 6	7 7 5 5 5	1-3 1-3 1-2 1-2	0-2	0	0	5.5-8.0	FAIR FAIR GOOD GOOD
PATHFINDER TRAILBLAZER	7H 7N	8N 8N	6	5	1-2 1-2					600D 600D
COOL SEASON GRASSES ORCHARDGRASS LATER	5 5	7	6 7	7	1-2 1-2	1-2	1-2	0-5	5.5-7.0	POOR POOR
REED CANARYGRASS IDREED RISE	0	6 6 6	7 8	6 6 6	1-2 1-2 1-2	1-2	1-2	0-5	5.5-7.0	PODR POOR POOR
SMOOTH BROMEGRASS ACHENBACH LINEOLN	6 5	8 8 8	8 6 7 7	7 7 7	1 1 1	1-2	1-2	0-5	5.5-7.0	FAIR FAIR FAIR
SOUTHLAND TALL FESCUE KENHY	6 6	8 8 8	7 7 6 7 7	7	1 1 1	1-5	1-2	0-5	6.2-7.0	FAIR POOR POOR
KENTUCKY 31 MISSOURI 96 WHEATBRASS	6 6	8	7	4	1					POOR POOR
BARTON	7	7	5	5 5	1-3 1-3	0-1	0-1	0-1	6.5-8.5	600D 600D
LEGUMES ALFALFA (STANDARD) (RHIZOMATOUS)	6 5	8 7	10 7	8	1-2	0-1 0-1	1-3 1-3	1-3	6.5-8.0 6.5-8.0	600D 600D
CROWNVETCH EMERALD SWEET CLOVER	5 5 6	7 7 7	8 8 7	5 5 7	1-3 1-3	0-1 0-1	0-5 0-5	1-2 1-2	6.5-8.0 6.5-8.0	FAIR FAIR FAIR

^{1 /} ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=800D; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

^{2 /} SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9. SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

^{3 /}SRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

^{4 /} STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

⁵_/ FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF N, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEBORY IS HEAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEBORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

^{6 /} Ph RANGE - LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

(Skeletal)

Description:

Deep, well drained soils with loamy surfaces with coarse fragments and loamy to clayey subsoils containing high amounts of coarse fragments. Soils in this subgroup occur on a wide range of slopes and topography and receive little

or no extra moisture from adjoining areas.

Limitations: Soils in this group have low available water capacity

because they are skeletal or fragmental.

Soils: Florence cherty, silt loam, complex

Florence silt loam, soils, complex Matfield cherty, silt loam, complex Olpe gravelly, silt loam, complex

LRA: 76 SUITABILITY GROUP:

-5-

SPECIES		CIES ILITY 1 / IRRIGATED	SPECIES PRODUC- TIVITY 2_/	GRAZING PREFERENCE 3_/	STAND ESTABLISH- MENT 4_/		TILIZ EDS 5 P		Ph RANGE 6_/	DROUGHT TOLERANCE
WARM SEASON GRASSES 816 BLUESTEM	7	7	5	7	2-3	0- :	0	0	6.0-7.5	FAIR-GOOD
KAN PANNEE INDIANGRASS	7 6N 7	7 6N 7	6 5	7 7 7	2-3 2-3 1-3	0-1	٥	0	5.5-7.5	FAIR-GOOD FAIR-GOOD FAIR
CHEYENNE NEBRRSKA 54	6 6N	Ġ 6N	6 6		1-3 1-3	V 1	٧	•	3.0 1.0	FAIR FAIR
OSAGE SWITCHGRASS BLACKWELL	7 6 6	7 7 7	566566566	7 7 7 5 5	1-3 1-2	0-5	0	0	5.5-8.0	FAIR GOOD GOOD
PATHFINDER TRAILBLAZER	6N 6N	7N 7N	6	5 5	1-2 1-2 1-2					600D 600D
COOL SEASON GRASSES				_						
SMOOTH BROMEGRASS ACHENBACH LINCOLN	5 5	7 7 7	6 7 7	7 7 7	1	1-2	l - 2	0-5	5.5-7.0	FAIR FAIR FAIR
SOUTHLAND TALL FESCUE	5 5	7 7	6 7 7 6 7	7	i	1-2	1-2	0-2	6.2-7.0	FAIR POOR
KENHY KENTUCKY 31 MISSOURI 96	55455555	7 7 7	7 7 7	4	1					POOR POOR POOR
WHEATBRASS WESTERN	5	6	4	5 5	1-3	0-1	0-1	0-i	6.5-8.5	6000
BARTON	5	6	5	5	1-3					6000
LEGUMES ALFALFA (STANDARD) (RHIZOMATOUS)	5	7	10 7	8	1-2	0-1 0-1	1-3 1-3	1-3 1-2		600D 600D
CROWNVETCH EMERALD	4	6	8 8 7	5 5 7	1-3 1-3	0-i	0-5	1-2	6.5-8.0	FAIR FAIR
SWEET CLOVER	5	6	7	7	1	0-1	0-2	1-2	6.5-8.0	FAIR

- 1_/ ADAPTABILITY O=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.
- 2 / SPECIES PRODUCTIVITY A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9. SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.
- 3/GRAZING PREFERENCE SCALE 1 8, (1=POOR, 8=EXCELLENT).
- 4 / STAND ESTABLISHMENT KUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.
- 5_/ FERTILIZER NEEDS 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P. 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALMAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.
- 6 / Ph RANGE LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

(Wet Loamy)

Description:

Deep, somewhat poorly or poorly drained soils with loamy surfaces and loamy to clayey subsoils. Soils in this subgroup occur on floodplains and terraces which receive

extra moisture from adjoining areas.

Seasonal wetness during a portion of the growing season. Limitations:

Soils: Chase silty clay loam

Wann fine sandy loam

SPECIES		CIES ILITY 1 / IRRIGATED	SPECIES PRODUC- TIVITY 2_/	GRAZING PREFERENCE 3_/	STAND ESTABLISH- MENT 4_/		EDS :		Ph RANGE 6_/	DROUGHT TOLERANCE
WARM SEASON GRASSES BERMUDAGRASS HARDIE MIDLAND	75 75 75	-	9 9 9	5 4 5	2-3 2-3 2-3	-3	0-2	1-2	5.5-8.0	FAIR FAIR FAIR
BIG BLUESTEM KAM PAMNEE	6 6 6N	-	9 5 6	7 7 7	2-3 2-3 2-3 2-3 2-3	0-1	0	Û	6.0-7.5	FAIR-GOOD FAIR-GOOD FAIR-GOOD
EASTERN GAMAGRASS INDIANGRASS CHEYENNE	9 6 5	-	10 5 6	8 7 7	2-4 1-3 1-3	0-3 0-1	0 0-5	0-1 0	5.5-7.5 5.5-7.5	FAIR FAIR FAIR
NEBRASKA 54 OSAGE RUMSEY SWITCHGRASS BLACKMELL KANLOW	6N 6 4 8 8 7	-	6 6 6 5 6 8 6	7 7 7 5 5	1-3 1-3 1-3 1-2 1-2 1-2	0-5	0	0	5.5-8.0	FAIR FAIR FAIR SOOD GOOD POOR
PATHEINDER TRAILBLAZER	7N 7N	-	6	5 6	1-2					600D 600D
COOL SEASON GRASSES CREEPING FOXTAIL GARRISON	7	-	6 7	7	1-2 1-2	1-2	1-2	0-2	5.5-7.0	POOR
DRCHARDGRASS LATAR	7	-	6 7	7 7	1-2 1-2	1-2	1-2	0-2	5.5-7.0	POOR POOR
REED CANARYGRASS	7 7	-	7	6. 6	1-2 1-2	1-2	1-2	0-5	5.5-7.0	POOR POOR POOR
RISE TALL FESCUE KENHY KENTUCKY 31 MISSOURI 96 MERTERASS	7 6 6 6	-	8 6 7 7 7	6 4 4 4	1-2 1 1 1	1-2	1-2	0-5	6.2-7.0	POOR POOR POOR POOR POOR
TALL JOSE	8 8		5 6	1	1-2 1-2	1-2	1-2	0-1	7.0-8.5	FAIR FAIR
WESTERN BARTON	8		4 5	5 5	1-3 1-3	0-1	0-1	0-1	6.5-6.5	600D 600D

¹_/ ADAPTABILITY - O=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

²_/ SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

³_/GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

^{4 /} STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

⁵_/ FERTILIZER NEEDS - 0=NONE; 1=10-50 POLINDS OF N, 20-40 POLINDS OF P, 20-40 POLINDS OF K; 2=50-100 POLINDS OF N, 40-60 POLINDS OF P, 40-70 POLINDS OF K: 3=100+ POLINDS OF N, 60+ POLINDS OF P, 70+ POLINDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALMAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

^{6 /} Ph RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

(Wet Clayey

Description: Deep, very poorly drained soil with clayey surfaces and

subsoils. Soils in this subgroup occur on floodplains and terraces which receive extra moisture from adjoining areas.

The subsoil is very slowly permeable.

Limitations: These soils have a seasonal high water table during the

winter and spring but are droughty during the summer.

Soils: Osage silty clay

Solomon silty clay Wabash silty clay loam

SPECTES	SPEC ADAPTABI DRYLAND	IES	SPECIES 0RODUC- TIVITY 2,/	GRAZING PREFERENCE . 3./	STAND ESTABLISH- MENT 4_/		TILIZ EDS 5		Ph RANGE 6_/	DROUGHT TOLERANCE
WARK SEPSON BRASSES BERKUDAGRASS HARDIE MIDLAND BIG BLLESTEM KAW SWITCHSRASS BLACKWELL KANLOW PARMEINDER TRAILPLAZER	69 69 69 4 7 7 7 6 7N 7N		7995656666	5 4 5 7 7 5 5 4 5 6	2-3 2-3 2-3 2-3 2-3 1-2 1-2 1-2 1-2	1-3 0-1 0-2	0 0	1-2 0 0	5.5-8.0 6.0-7.5 5.5-8.0	FAIR FAIR FAIR FAIR-500D FAIR-600D GOOD GOOD POOR 600D 600D
COOL SEASON GRASSES CREEPING FOXTAIL GARRISON ORCHARDGRASS LETAR REED CANARYGRASS TOREED RISE TALL FESCUE KENHY KENTUCKY 31 #ISSOURI 96 WHERTGRASS	66666666666		6 7 7 8 8 6 7 7	7 7 7 7 7 7 7 8 8 8 4 4 4	1-2 1-2 1-2 1-2 1-2 1-2 1-2	1-2 1-2 1-2		0-2		POOR POOR POOR POOR POOR POOR POOR POOR
TALL JOSE AESTERN BARTON	8 8 8		5 6 4 5	4 4 5 5	1-2 1-2 1-3 1-3	1-2 0-1	1-ë 0-1	0-1 0-1	7.0-8.5 6.5-8.5	FAIR FAIR SUOD 600D

- 1_/ ADAPTABILITY 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=SOOD; #=NORTH OF THE 5MCKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.
- 2_/ SPECIES PRODUCTIVITY A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS BROUP.
- 3_/BRAZING PREFERENCE SCALE 1 8, (1=POOR, B=EXCELLENT).
- 4_/ STAND ESTABLISHMENT NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.
- 5/ FERTILIZER NEEDS O=NONE; 1=10-50 PGUNDS OF N. 20-40 POUNDS OF P. 20-40 PGUNDS OF K; 2=50-100 POUNDS OF N. 40-60 PDUNDS OF P. 40-70 PDUNDS OF K: 3=100+ POUNDS OF N. 60+ PDUNDS OF P. 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALMAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.
- 6 / Ph RANSE LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

(Loamy-Moderately Deep)

Description: Moderately deep, well drained or moderately well drained

soils with loamy surfaces and subsoils. Soils in this subgroup occur on uplands and are underlain by bedrock at

depths of 20 to 40 inches.

Limitations: Restricted root depth due to bedrock.

Soils: Benfield cherty, silt loam Fiat silty clay loam

Labette silty clay loam, cherty silty clay loam, complex Longford silty clay loam; silty clay loam, eroded

(Bedrock substratum)

LRA: 75 SHITABILITY BROUP: F-1

SPECIES	ADAPTAB	CIES	SPECIES PRODUC- TIVITY		STAND ESTABLISH-	۸E	TILIZ EDS 5		Pn RANGE	DROUGHT TOLERANDS
SPECIES	DRYLAND	IRRIGATED	5_1	3_/	HENT 4_/	Ä	٠	!	5_/	TULEMINES
#ARM SEASON GERSSES BIG BLUESTE: KAN PANNEE	7 7 6N	7 7 6N	5 6	7 7 7	2-3 2-3 2-3	0- :	0	0	6.0-7.5	FAIR-600D FAIR-600D FAIR-600D
INDIANGRASS CHEVENNE NEBRASKA 54	7 6 6 7	7 6 6	50656665666	7 7 7	1-3 1-3 1-3	0-1	0	, 0 .	5.5-7.5	FAIR FAIR FAIR
USAGE SWETCHERASS BLACKVELL SOTUTION	6	7 7 7	5 6	7 5 5 5	1-3 1-2 1-2	0-2	0	0	5.5-8.0	FAIR 600D 600D 600D
patheinder Frailblazer	en En	7N 7N	6	3 6	1-2 1-2					8000 8000
ODGE SEASON GRASSES										
SMGOTH BROMEGRASS ACHENBACH	5 5	7	6 7	7	1	1-5	1-2	0-5	5.5-7.0	FAIR FAIR
LINCOLN	4	7	7	Ź	i					FAIR
SOUTHLAND TALL FESCUE	5 5	7	7 6 7	1	į.	1-2	1-2	0-2	6.2-7.0	FAIR POOR
KENHY KENHY	4 5	6 7	7	4	1					POOR POOR
MISSOURI 96 WHEATGRASS	3	7	7	4	1					POGR
HESTERN BARTON	6 6	6	5	5 5	1-3 1-3	Q- 1	0-1	0-1	6.5 -8. 5	600D 600D
LEGIRES	•	•	ι۸.	G		۸_1	1_7	1_7	C F-0 0	COOR
ALFALFA (STANDARD) (RHIZOMATOUS)	5 4	6	10 7	8 8	1-2	0-1 0-1	1-3	1-2	5.5-8.0 6.5-8.0	6000 6000
CROWNVETEH EMERGLD	4	6 6	8 8	5	1-3	0-1	0-5	1-5	6.5-8.0	FAIR FAIR
SHEET CLOVER	5	6	7	3 7	1-3 1	0-:	0-5	:-2	6 .5-8. 0	FAIR

^{1 /} ADAPTABILITY - O=NOT ADAPTED, 1-3=PODA, 4-6=FAIR, 7-9=8000; N=NORTH OF THE SMCKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES DALY.

^{2 /} SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

³_/GRAZING PREFERENCE - SCALE 1 - 8, (1=POUR, 8=EXCELLENT).

^{4 /} STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

⁵_/ FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K: 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K: 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEBORY IS N-AT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEBORY IS THE MIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALMAYS BE USED ON IRRIBATED PASTURES AND OTHER INTENSIVELY MANASED PASTURES.

^{5 /} Ph RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

(Limy-Moderately Deep)

Description:

Moderately deep, well drained or moderately well drained soils with loamy surfaces and loamy to clayey subsoils. Soils in this subgroup occur on uplands and have calcareous surface and subsurface layers and are underlain with

calcareous bedrock at depths of 20 to 40 inches.

Limitations:

Soils in this subgroup are slightly affected by limy surfaces and subsoils and have a restricted root depth.

Soils: Clime silty clay, silty clay loam

SPECIES		CIES ILITY 1 / IRRIGATED	SPECIES PRODUC- TIVITY 2_/	GRAZING PREFERENCE 3_/	STAND ESTABLISH- MENT 4_/		RTILI: EEDS :		Pn RANGE 6_/	DROUBHT TOLERANCE
NARM SEASON GRASSES BIG BLUESTEM	7	0	5	7.	2-3	0-1	0	0	6.0-7.5	FAIR-5000
KAW	7	Ŏ			2-3	V-1	v	U	5.0-7.5	FAIR-5000
PAWNEE INDIANGRASS	5 7	0	6656665	7 7 7	2-3 1-3	0-1	0	9	5.5-7.5	FAIR-600D FAIR
CHEYENNE	5	Ó	ĕ	7	1-3	0.	v	7	J. J-1. J	FAIR
∿ebraska 54 osage	6n 7	0	6	7	1-3 1-3					FAIR
SWITCHERASS	6	υ	5	Ś	1-2	0-2	0	0	5.5-8.0	FAIR 6000
BLACKWELL PATHFINDER	6 6N	0	6	5 5 5 6	1-2					GOOD
TRAILBLAZER	6N	ŏ	6	6	1-2 1-2					600D 600D
COOL SERSON GRASSES										
S#05TH BROKEGRASS	5 5	0	5 7	7		1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH LINCOLN	5	0	7	7 7						FAIR
SOUTHLAND	5	ŏ	Ź	7						FAIR FAIR
WHEATBRASS WESTERN	•			_	_					
#ED:ERN BERTON	6 6	0	5	5 5	1-3 1-3	0-1	0-1	0-1	5.5 -8 .5	6000 6000
E8: • E5	_	J	-	•						עטטט
ALFALFA (STANDARD)	5	ů	10	A	1	0-1	1-3	1-3	6.5-8.0	SOOD
(RHIZOMATOUS)	4	ŏ	7	ĕ	1-2	0-1	1-3	1-5	6.5-8.0	500D
CROWNVETCH	4	0	8	8 5 5	i-3	0-1	0-ē	i-2	6.5-8.0	FAIR
EMERALD	4	0	ě	5	1-3					FAIR
SWEET CLOVER	5	0	7	7	1	0-1	0-5	1-2	6.5 -8 .0	FAIR

¹_/ ADAPTABILITY - O=NGT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GODD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES DNLY.

^{2 /} SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9. SHOULD GIVE A POTENTIAL ACM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

³_/SRAZING PREFERENCE - SCALE 1 - 8, (1=PDOR, 8=EXCELLENT).

^{4 /} STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

^{5 /} FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N. 20-40 POUNDS OF P. 20-40 POUNDS OF K; 2=50-100 POUNDS OF N. 40-60 POUNDS OF P. 40-70 POUNDS OF K; 3=100+ POUNDS OF N. 60+ POUNDS OF P. 70+ POUNDS OF K. THE FIRST CATEBORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEBORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS S-CULD ALWAYS PE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

^{6 /} An HANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

(Eroded Clay)

Description: Deep, well drained to somewhat poorly drained, eroded soils

with clayey or thin loamy surfaces and clayey subsoils.

Limitations: Stand establishment on these soils is very difficult due to

clayey or thin surfaces. Low organic matter will limit fertility and plant production (causing difficult management

decisions).

Soils: Dennis silty clay loam, eroded

Irwin silty clay loam, eroded Ladysmith silty clay loam, eroded Martin silty clay loam, eroded Mayberry clay loam, eroded Tully silty clay loam, eroded

LRA: 75 SUITABLLITY GROUP: 5-3

SPECIES		CIES ILITY 1 / IRRIGATED	SPECIES PRODUC- TIVITY 2_/	GRAZING PREFERENCE 3_/	STAND ESTABLISH- MENT 4_/	_	RTILLI EDS (PS RANGE 6_/	DROUGHT TOLERANCE
#AP# SEASON EPASSES BIG BLUESTEY	6	£	5	· 7 ·	2-3	0-1	0	٥	6.0-7.5	FA19-6220
KAN PANNEE	6 6 5N	6 5N	5	7	2-3 2-3	A-1	U ,	V	2.0-1.3	FAIR-SCOD FAIR-SCOD
indirngrass Cheyenne	6 5	6 5	5	7	1-3 1-3	0-1	0	0	5.5-7.5	FAIR FAIR
NEBRASKA E4 OSAGE	5N	5% - 6	6	7 7	1-3 1-3					FAIR FAIR
SIDEORTS BRAMA EL RENO	6 6	7	3	5 5	1-3 1-3	9-1	0		6.0-7.5	9000 6000
TRAILWAY SWITCHGRASS	6N 5	7 N 7	5	១១១១១១១	1-3 1-2	0-5	0	ø	5.5-8.0	600D 600D
BLACKWELL PATHFINDER TRAILBLAZER	. 6 6n 6n	74 74	6	5	1-2 1-2					6000 6000
COOL SEASON GRASSES	ON	7 n	6	6	1-2					6000
TALL FESCUE KENHY	4 3	7 6	6 7	4	1	2	1-2	0-2	6.2-7.0	900R
KENTUCKY 31 MISGOURI 96	4	7	7 7	Ţ	1					POGR POGR POGR
WHEATERASS WESTERN	·	6	4	5	1-3	۸_۱	0-1	م_ ز	6.5-8.5	
BARTON	5 5	ě	5	5 5	1-3	A-1	A-1	A-1	2.375.3	6000 6000

- 1_/ ADAPTABILITY O=NGT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=6GDD; N=NORTH OF THE 540KY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES DNLY.
- 2_/ SPECIES PRODUCTIVITY A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.
- 3_/ESPZING PREFERENCE SCALE 1 8, (1=POCR, 8=EXCELLENT).
- 4 / STAND ESTABLISHMENT NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.
- 5_/ FERTILIZER NEEDS O=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALMAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.
- 6 / PA RANGE LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

(Clayey)

Description: Deep and moderately deep, well drained to somewhat poorly

drained soils with loamy or clayey surfaces and clayey subsoils. (If surface texture is loamy, it is less than

14 inches over dense clayey subsoil.)

Slowly or very slowly permeable clayey subsoils. Limitations:

Soils: Eram silt loam, silty clay loam

Ladysmith silty clay loam

Mayberry clay loam
Pawnee clay loam, complex

Zaar silty clay

SPECIES		CIES ILITY 1 / IRRIGATED	SPECIES PRODUC- TIVITY 2_/	BRAZING PREFERENCE 3_/	STAND ESTABLISH- MENT 4_/		RTILLI EEDS S		Ph RANGE 6_/	DROU S HT TOLERANCE
MARM SEASON GRASSES BIG BLUESTEM KAM PANNEE	7 7	7 7	5	7	2-3 2-3	0- :	0	0	6.0-7.5	FAIR-600D FAIR-600D
INDIANGRASS CHEYENNE NEBRASKA 54	6N 7 6 6N	6n 7 6 6n	5 6 6	7 7 7 7	2-3 1-3 1-3 1-3	0-1	0	0	5.5-7.5	FAIR-GOOD FAIR FAIR FAIR
JSAGE SWITCHGRASS BLACKWELL PATHFINDER TRAILBLAZER	7 6 6 6N 6N	7 7 7 7 7 7 7 7	66566566	7 5 5 5 6	1-3 1-2 1-2 1-2 1-2	0-2	0	0	5.5 -6. 0	FAIR 600D 600D 600D 600D
COOL SEASON GRASSES SMOOTH BROMEGRASS ACHENBACH	5 5	7 7 7	6 7 7	7 7 7	1 1	1-2	2	: 0-2	5.5-7.0	FAIR FAIR
SGUTHLAND TALL FESCUE KENHY KENTUCKY 31 MISSDURI 96	55555	7 7 7 7	7 6 7 7	7 4 4	•	-2	2	o-s	6.2-7.0	FAIR FAIR POOR POOR POOR POOR
MHEATERASS WESTERN BARTON	5 6	6 6	4 5	5 5	1-3 1-3	0-1	0-1	0-1	6.5-8.5	6000 6000

- 1_/ ADAPTABULITY 0=NOT ADAPTED, 1-3=PODR, 4-6=FAIR, 7-9=6000; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.
- 2./ SPECIES PRODUCTIVITY A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.
- 3 / GRAZING PREFERENCE SCALE 1 8, (1=POOR, 8=EXCELLENT).
- 4 / STAND ESTABLISHMENT NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.
- 5 / FERTILIZER NEEDS O=NUNE: 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K: 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K: 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALMAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.
- 6 / Ph RANGE LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

SECTION II-K TO NOTICE KS-147, 4/87

5

SUITABILITY GROUP G-2

(Sodic)

Description: Deep, moderately well drained soils with silty surfaces and dense clay subsoils. These soils contain accumulations of

alkali or sodium salts.

Limitations: Excessive alkalinity or sodium salts.

Soils: Dwight silt loam, complex; silt loam, eroded

SPECIES		CIES ILITY ! / IRRIGATED	SPECIES PRODUC- TIVITY 2_/	GRAZING PREFERENCE 3_/	STAND ESTABLISH- MENT 4_/		EDS 5		on RANGE 6_/	DROUGHT TOLERANCE
KART SERSON GRASSES										
BIS BLUESTEM	ě	0	5	7	2-3	0-1	0	0	6-0-7.5	FAIR-GOOD
INDIANGRASS	6 6	() ()	6 5	1 7	2-3 1-3	0-1	0	a	5,5-7,5	FAIR-SOOD FAIR
Q5AGE	š	ŏ	6	Ż	1-3	V -1	v	9	7.2-1.3	FAIR
SIDEGATS GRAMA	5	0	3	5	1-3	0-i	0	0	6.0-7.5	6000
EL REND TRAILMAY	5 6N	0	4	ຼັ	1-3					BOOD
5#ITCHGRASS	6	ŏ	5	かいいいい	1-3 1-2	0-2	Ö		5.5-8.0	6000 6060
9LACKNELL	6	Ö	5 6	5	1-2	•			0. C 0. C	5000
600L SERSON GRASSES										
SMOOTH BROMEGRASS	4	O	6	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH LINCOLN	4	0	7	7	1					FAIR
SOUTHLAND	7	0	2	7	Į.					FAIR FAIR
TALL FESCUE	Ś	ŏ	6	4	.	1-2	1-2	0-2	5.2-7.0	POOR
KENTUCKY 31 WHEATGRASS	5	O	7	4						POCR
WESTERN	5	0	4	5	1-3	0-i	0-1	Ω=1	6.5-8.5	6000
BARTON	5 3	Ŏ	5	5	i-3	V 1	V -1	01	0.0.0.0	600D

- 1_/ 9DAPTABILITY O=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=800D; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.
- 2 / SPECIES PRODUCTIVITY A POTENTIAL ANIMAL UNIT MONTH NATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABLLITY FACTOR, DIVIDED BY B, SHOULD BIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.
- 3 /GRAZING PREFERENCE SCALE 1 8, (1=POOR, 8=EXCELLENT).
- 4 / STAND ESTABLISHMENT NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.
- 5 / FERTILIZER NEEDS 0=NONE; 1=10-50 POUNDS OF N. 20-40 POUNDS OF P. 20-40 POUNDS OF K; 2=50-100 POUNDS OF N. 40-60 POUNDS OF P. 40-70 POUNDS OF K: 3=100+ POUNDS OF N. 60+ POUNDS OF P. 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTRIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALMAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.
- 6 / Ph RANGE LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

(Not Suitable)

Description: This group includes various textures and phases of soils and

land types which occur on a wide range of slopes and

topography.

Limitations: Soils in this group are generally too shallow, erosive.

gravelly, stony, or rocky; too steep, droughty, wet, clayey

or saline and alkaline for good survival or growth of

pasture species.

Soils: Aquents, flooded

Clime, stony, rock outcrop

Kipson silty clay loam, complex

Paxico silt loam

Sogn silty clay loam, complex

Sogn steep land

Tuttle silty clay loam, stony